

REMARKS

Claims 22-25 and 27-33 remain for reconsideration. Claims 1-21, 26, and 34-40 were previously cancelled.

Claims 22-25, 29, and 33 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,237,630 to Hogg.

Claims 22-25, 28, and 31-33 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,879,571 to Kalman.

Claims 25-28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hogg.

These rejections are respectfully traversed based on the following discussion.

Briefly, embodiments of the present invention are directed to methods for forming an alignment dots on waveguides. A first waveguide and a second waveguide may be aligned by applying an alignment dot on end surfaces of the cores of first and second waveguides. Various methods are disclosed as recited in claims 22 and 33. Once formed the alignment dots may be positioned in close proximity to one another, and are melted together. Surface tension pulls the first and second waveguides into alignment. This is disclosed for example on page 3, lines 5-7 of the patent application.

Independent claim 22 was previously amended to recite “...filling the mask opening with an optical material to form a self-aligning dot, the optical material having a melting point and when melted in the proximity of a second alignment dot on a second waveguide, surface tension pulls the waveguide and the second waveguide into alignment with each other” (emphasis added).

Similarly, independent claim 33 was amended to recite: “...removing the uncured portion of the photo sensitive optical material, the cured portion of the photosensitive material forming the alignment dot, the alignment dot having a melting point and when melted in the proximity of a second alignment dot on a second waveguide, surface tension pulls the waveguide and the second waveguide into alignment with each other” (emphasis added).

In the Examiner’s remarks, the Examiner appears to uphold the previous rejections, despite the added recitations, with two main arguments. First, the added features go to an “intended use”. Second, “a recitation of intended use must result in a structural difference between the claimed invention and the prior art.

In response, the additional recitations do not go to an intended use, rather, these are method claims and one of the steps involves melting the dots and allowing surface tension to pull the fibers into alignment.

With regard to the “structural difference”, to the extent a method claim needs a “structural difference” is unclear. That said, there is a structural difference in that neither Hogg nor Kalman teach or suggest the claimed “self

Alignment is discussed on column 5, lines 25-35 of Hogg, wherein it states:

"The stress regions in the fiber 12 define the two polarization axes. These axes must be aligned prior to fusion splicing in order to preserve linear polarization through the semireflective splice 18. This is accomplished by several known methods, including:

i) monitoring the state of polarization of light propagating through the two fibers 12 prior to fusion splicing;

ii) visually aligning the stress regions visible at the fiber 12 endface 22; or

iii) visually aligning the stress regions as viewed perpendicularly through the side of the fiber."

Of the three alignment methods taught by Hogg, not one remotely suggests the claimed melting of a "self aligning dot" as does the present invention.

With regard to Kalman, Kalman is directed to a method for forming

lenses on optical waveguides using masks as shown for Example in Figures 6A-6F. Again, this is unrelated to forming alignment dots with a material having a melting point to create a surface tension for alignment as now recited in the claims. Thus, the claims as amended are neither anticipated by the prior art of record nor rendered obvious.

The Examiner notes broad portions of Hogg (e.g. "the paragraphs spanning columns 7-8 of Hogg", and Figures 8A-G). However, none of this teaches or suggests a self aligning dot made of a material that is melted as claimed. The Examiner states that "As to the dot being a 'self-aligning dot' it is deemed that such an intended use of the dot does not define over Hogg". It is respectfully submitted that this argument, is irrelevant since Hogg does not teach or suggest such a dot in the first place.

The Examiner is respectfully requested to point out the alignment dots which are taught to be melted in the Figures and text of Hogg and Kalman or withdraw the rejection.

In view of the foregoing, it requested that the application be reconsidered, that claims 22-25 and 27-33 be allowed and that the application be passed to issue. Please charge any shortages and credit any overcharges to Intel's Deposit Account number 50-0221.

Respectfully submitted,

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Signature:



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